

CLAIMS

1. A plate for mass spectrometry comprising a support and a coating adhering thereto, wherein said coating contains polyvinylidene difluoride.
5
2. The plate of claim 1, wherein the support is made of aluminum or stainless steel.
3. A method of preparing a plate for mass spectrometry,
10 comprising coating a support with polyvinylidene difluoride.
4. The method of claim 3, wherein the means for the coating is painting, spraying, vapor deposition, immersion, printing or sputtering.
15
5. The method of claim 3 or 4, comprising applying a solution containing polyvinylidene difluoride to the support.
6. The method of claim 5, comprising removing the solvent after
20 application.
7. A plate for mass spectrometry obtained by the method of any of claims 3-6.
- 25 8. A method of identifying an analyte, comprising steps (a)-(d) below:
 - (a) providing the plate for mass spectrometry of claim 1 or 7,
 - (b) subjecting an analyte-containing sample to gel electrophoresis,
 - 30 (c) blotting the gel after migration to said plate to transfer the analyte to said plate, and
 - (d) subjecting said plate to mass spectrometry to analyze the transferred analyte.

9. The method of claim 8, wherein the blotting is electrical blotting.

10. The method of claim 8 or 9, wherein the mass spectrometry is
5 MALDI-MS.

11. The method of any of claims 8-10, wherein the analyte-containing sample contains a plurality of kinds of analytes.

10 12. The method of any of claims 8-11, wherein the analyte is selected from the group consisting of protein, nucleic acid, oligonucleotide, saccharide, oligosaccharide, cell membrane receptor agonist or antagonist, toxin, virus epitope, hormone, peptide, enzyme, enzyme substrate or inhibitor, cofactor, drug,
15 lectin and antibody.

13. The method of any of claims 8-12, further comprising a step (c2) wherein a sample containing a substance that has affinity for the transferred analyte is brought into contact with the
20 plate to form a complex of said analyte and said substance on said plate, between the steps (c) and (d), whereby said analyte and said substance are analyzed simultaneously in the step (d).

14. The method of any of claims 8-13, further comprising adding
25 a matrix for mass spectrometry to the plate between the step (c) or (c2) and the step (d).

15. The method of claim 14, wherein the matrix is 2,5-dihydroxybenzoic acid.
30